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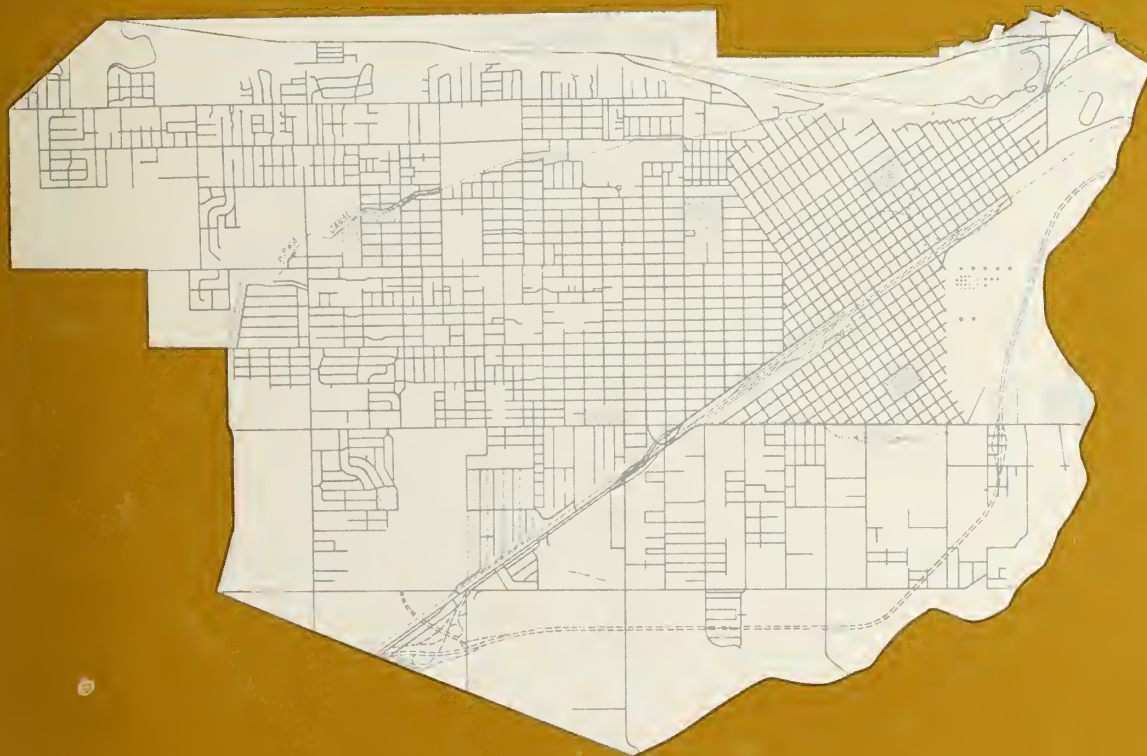
De Leuw, Cather &
Company
Billings
metropolitan area
transportation
study

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STATE DOCUMENTS

JUN 1972

BILLINGS METROPOLITAN AREA TRANSPORTATION STUDY

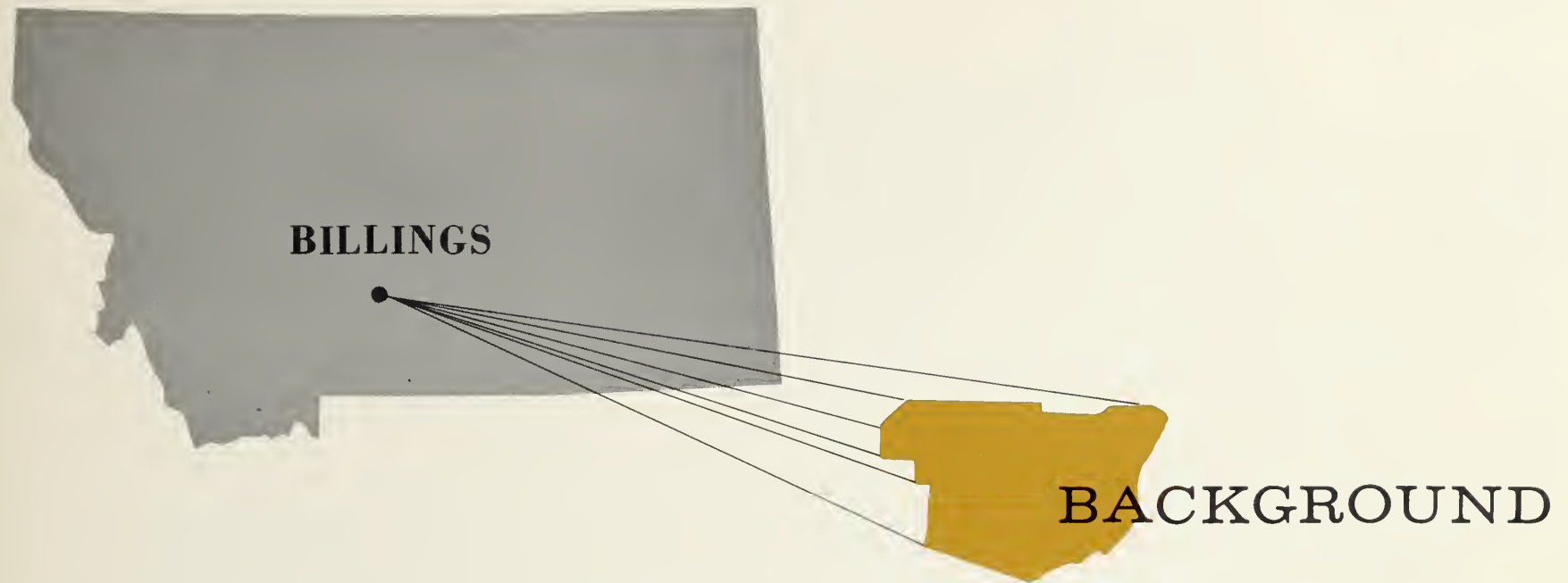


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A comprehensive transportation study has been made in Billings. Based on the findings of this study, a long-range plan has been prepared for highway improvements and related programs to meet the needs of this prospering transportation center.

The City of Billings, located in Yellowstone County in south central Montana, was established in 1882. It was named for Frederick Parmley Billings, then president of the Northern Pacific Railway. The city is the dominant trading center for a large and important section of the Northwest.

The importance of the Billings area is in large part due to its transportation facilities. East-West U.S. Highway 10 bisects the city. U.S. 87, 312, and 212, as well as Montana Highways 3 and 302 also

serve the area. The construction of Interstate Highways 90 and 94 in the near future will further enhance Billings' position as a transportation center. The city is on the main line of the Northern Pacific Railroad. The Chicago, Burlington & Quincy Railroad and the Great Northern Railway also operate over these tracks. Three major airlines--Northwest, Western and Frontier--serve the area. An urban bus system and two taxicab companies render local service. Inter-city buses radiate in all directions.

The economy of Billings is based primarily on agriculture and commerce. Oil exploration and processing are recent, but growing, activities. The expanding economy has brought street and highway traffic problems, however, which future growth will intensify.

THE STUDY

Present volumes and characteristics of travel on streets and highways were determined. Traffic counts were made at numerous critical locations. These included manual peak-hour counts at 20 intersections, manual counts by type and direction at 49 other places, and automatic recording counts at approximately 250 spots throughout the area. In addition, studies were made of present driving time on all major arterials.

The next step was to survey the daily travel habits of motor vehicle drivers and passengers in

the entire metropolitan area. More than 2,800 homes were visited and the occupants interviewed concerning their trips on a typical day. It was found that Daily Trips averaged 8.24 per dwelling unit, or 2.47 per capita. Over 18,000 drivers entering and leaving the area were questioned at roadside check points and 1,123 truck and a score of taxi operators furnished data. The final phase was a survey of parking facilities and a study of the characteristics of parking demand in the central business district. These studies included inventories of existing curb and off-street parking spaces and interviews with nearly 15,000 drivers who parked downtown.

GROWTH TRENDS

The data were then processed on electronic machines and prepared for the modern computers now used in such studies. The area's future travel demands were predicted by analyzing past trends and growth patterns. The year 1981 was chosen as a target year to assure farsighted yet realistic plans.

The population of the Billings urban area grew from about 18,000 in 1930 to 66,135 in 1960. By 1981, it will double to an estimated 125,000. Vehicle ownership will increase from 420 autos and trucks per 1,000 persons in 1961, it is predicted, to 475 in 1981.

These trends indicate the magnitude of future trips that will be generated by residential areas. It was also necessary to forecast the number of trips to industrial, commercial, public and semi-public places. This was done partly through conferences



1960 and Estimated 1981 Population

with local officials, civic leaders and long-time residents of Billings. The growth factors were based, in large measure, therefore, on the judgment of people familiar with current trends and future needs, as well as on statistical evidence.

Combining all factors resulted in estimates that the number of vehicle trips in the Billings study area will approximately double from 184,000 per day in 1961 to 362,000 in 1981.

RECOMMENDED SYSTEM

The existing street system, at several points, is inadequate to meet today's traffic needs. By 1981, many streets will have to be extended, widened, or channelized. Other important improvements will include one-way streets, highway interchanges, railroad grade separations, parking restrictions, and progressively-timed traffic signals.

First priority projects include: The widening and improvement of Rimrock Road, Poly Drive, Grand Avenue and Sixth Avenue North for almost the entire length of each. Portions of the following streets will also have to be widened and the entire length improved: Broadwater Avenue, Central Avenue, First and Fourth Avenues North, Virginia Lane, and 16th and 17th Streets.

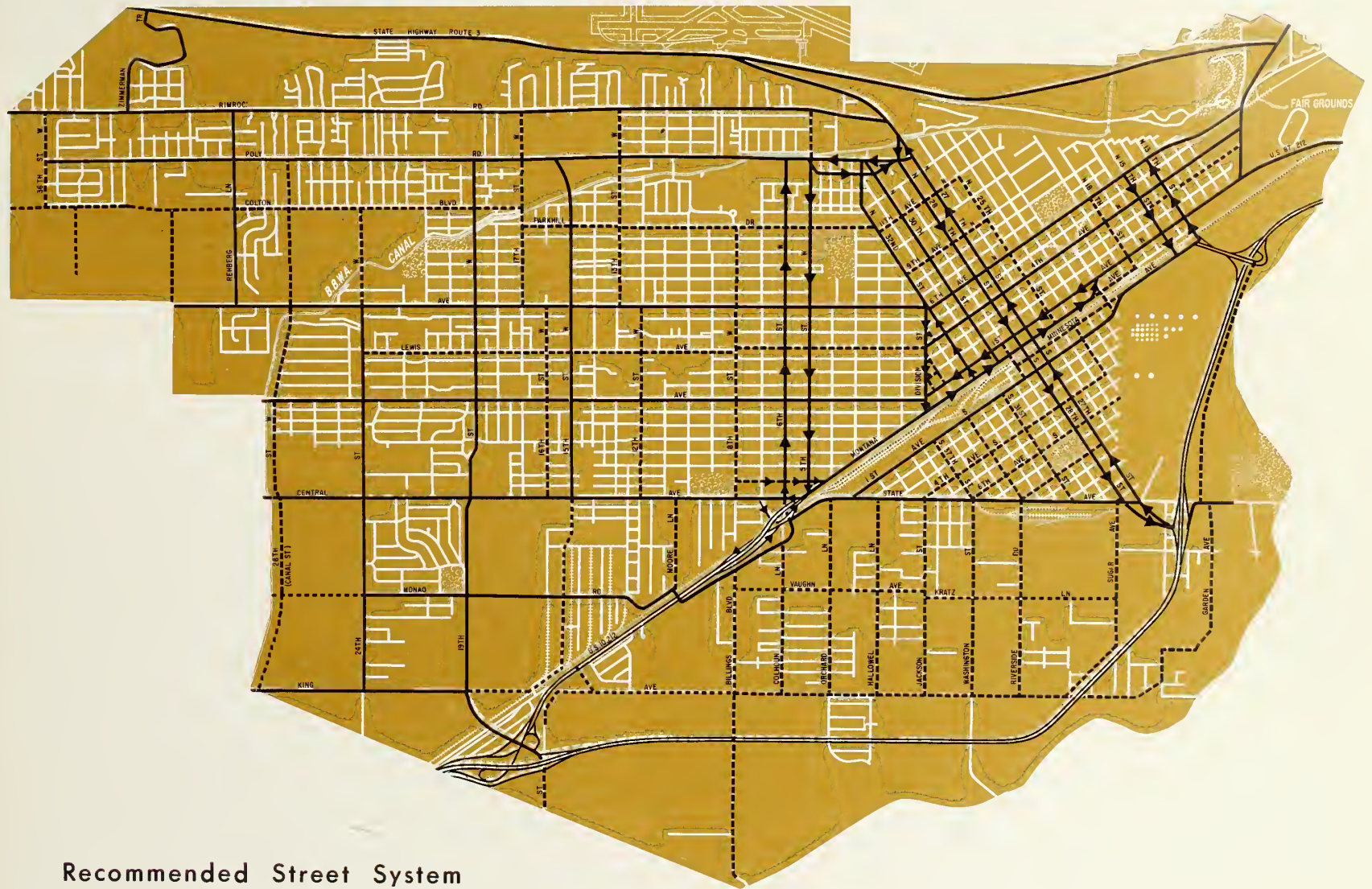
A new interchange with Interstate 90 will have to be provided near 13th Street to relieve future traffic on U.S. 87 E.

One-way operation will have to be instituted on these arteries: Montana Avenue and First Avenue North, Grandview Boulevard and Poly Drive, 27th and 28th Streets, and Fifth and Sixth Streets West, as well as Division and North 32nd Street. Both

Sixth Street West and South 28th Street will have to be extended.

Descriptions of these and other improvements are presented in detail in a voluminous report entitled, "Transportation Plan--Billings Metropolitan Area Transportation Study". Copies are available for inspection at the City Hall.





Recommended Street System

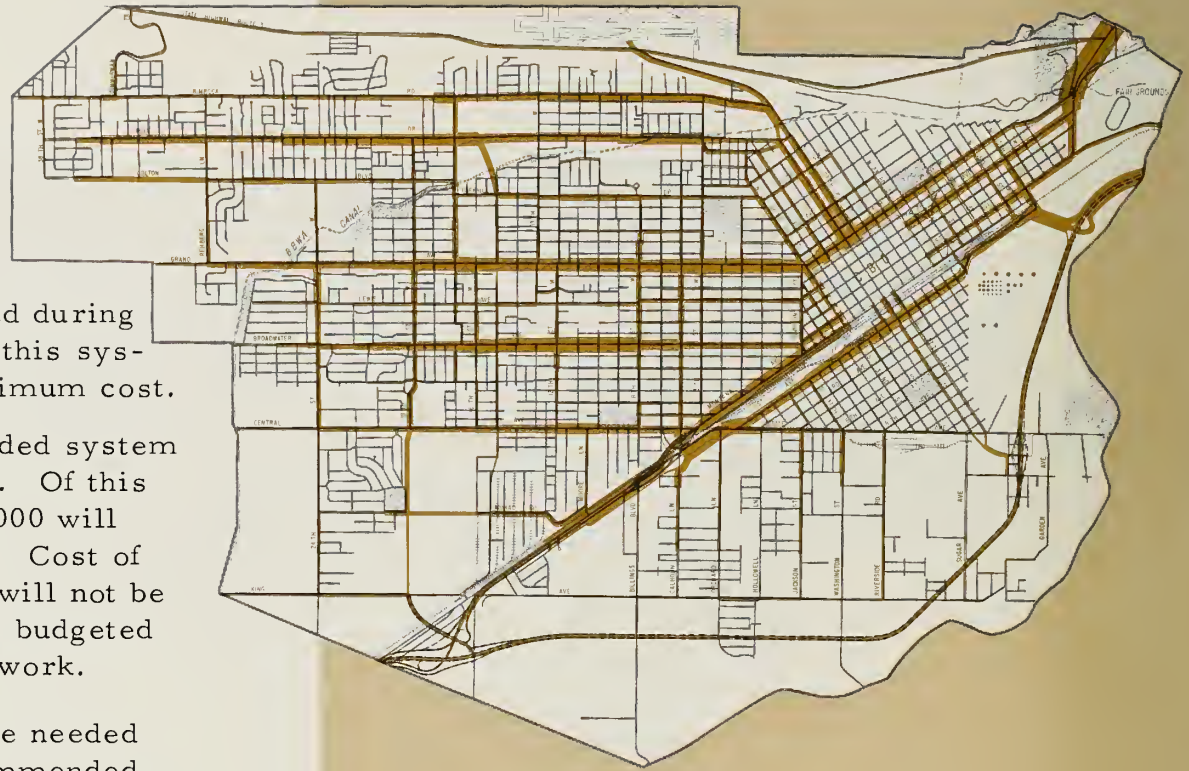
FINANCING

The recommended system has evolved during many months of study. It is believed that this system will provide maximum service at minimum cost.

The improvements in the recommended system will cost about \$20,000,000 at 1962 levels. Of this amount, however, approximately \$4,800,000 will come from federal, state or county funds. Cost of recommended improvements, moreover, will not be entirely additional to regular expenditures budgeted in the city's continuing program of street work.

About \$17,000,000 in city funds will be needed to buy right of way and construct the recommended street system. If the expenditure is spread over 20 years, the average annual capital outlay will be slightly over \$800,000, exclusive of interest. Average population of the study area over the next two decades will be about 80,000. The cost in city funds, therefore, will be approximately \$10.00 per capita per year.

Although the recommended system has been planned to meet the needs of the area for the next two decades, it is urged that the program be implemented as rapidly as possible. By using the city's bonding powers, the projects could be built promptly but paid for gradually.



1981 Traffic Flow



PUBLIC TRANSIT

The recommended transportation system is intended to achieve maximum coordination between highway and public transport facilities. The primary objective was to exploit the advantages of both the automobile and the public bus system, while minimizing any inherent disadvantages of either.

Notwithstanding the comfortable equipment and relatively good standard of service offered by Western Transit Company, buses carry relatively few passengers in Billings. The 1961 origin-destination

survey found that 98.4 percent of the person-trips on a typical weekday were made as passengers or drivers of autos, taxicabs and trucks, while bus riders accounted for only 1.6 percent, including school bus riders.

Continued efforts to make transit service more popular through programs such as the "Ride-'n-Shop" plan should increase future patronage. Continuing support by the people of Billings, as well as by public officials will be necessary to attain this goal.

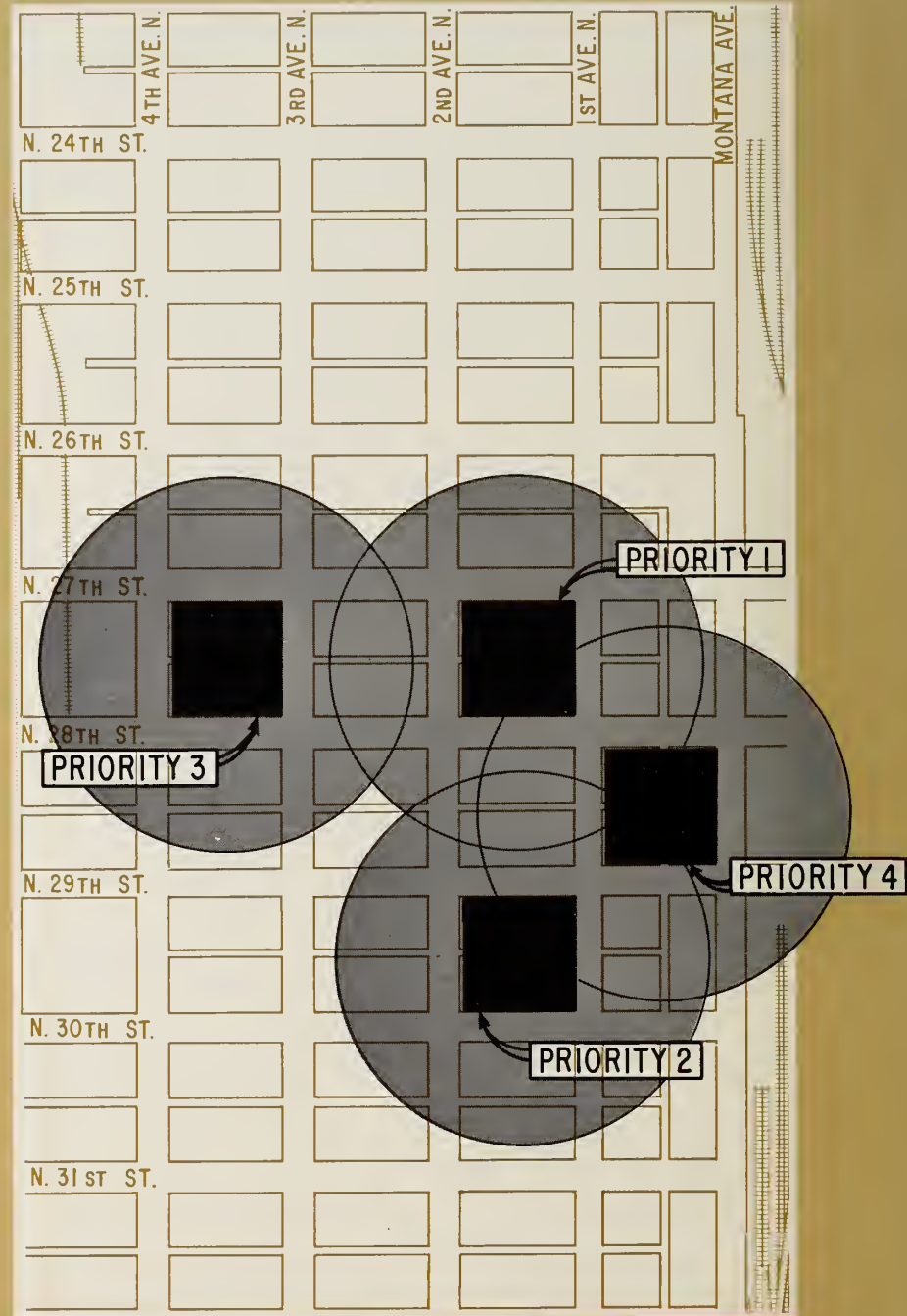
PARKING

Downtown Billings is fortunate in having a relatively large amount of parking space at present. An aggressive program will be advisable, however, to assure sufficient capacity in the future to meet growing parking demand.

The exhibit shows the assigned priority ratings for blocks needing additional parking spaces.

Potential sites for off-street parking facilities in or near the core area should be acquired as they become available or when increased parking demand justifies new centrally-located facilities. The sites may be developed initially as parking lots, and multi-level decks built later. Stage construction would permit efficient operation during the growth period.

The new downtown "Park and Shop" program merits continued support. The prospect is for increased competition from outlying shopping centers offering free parking for customers. It is important, therefore, that downtown merchants and property owners help reduce the cost of parking in their area to assure an equitable distribution of an ever-increasing volume of retail trade.



Prepared for

THE STATE HIGHWAY COMMISSION

OF THE STATE OF MONTANA

and

THE CITY OF BILLINGS

in cooperation with

THE U. S. DEPARTMENT OF COMMERCE

BUREAU OF PUBLIC ROADS

by

DE LEUW, CATHER & COMPANY

CONSULTING ENGINEERS

CHICAGO

BILLINGS METROPOLITAN AREA
TRANSPORTATION STUDY REPORTS

Basic Data on Traffic - 1961

Basic Data on Parking - 1961

Transportation Plan

